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BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS

Arizona Corporation Commission

Lea Márquez-Peterson, Chairwoman
 Jim O'Connor
 Justin Olson
 Sandra D. Kennedy
 Anna Tovar

DOCKETED

MAR 14 2022

DOCKETED BY

IN THE MATTER OF THE APPLICATION W
 OF SALT RIVER PROJECT
 AGRICULTURAL IMPROVEMENT AND
 POWER DISTRICT, IN CONFORMANCE
 WITH THE REQUIREMENTS OF ARIZONA
 REVISED STATUTES, SECTIONS 40-360, ET
 SEQ., FOR A CERTIFICATE OF
 ENVIRONMENTAL COMPATIBILITY
 AUTHORIZING THE EXPANSION OF THE
 COOLIDGE GENERATING STATION, ALL
 WITHIN THE CITY OF COOLIDGE, PINAL
 COUNTY, ARIZONA.

DOCKET NO.: L-00000B-21-0393-
 00197

**SALT RIVER PROJECT'S
 BRIEF REQUESTING
 CONFIRMATION OF THE CEC
 GRANTED BY THE LINE SITING
 COMMITTEE**

Salt River Project Agricultural Improvement and Power District ("SRP") respectfully requests that the Arizona Corporation Commission ("Commission") confirm the Certificate of Environmental Compatibility ("CEC") issued by the Power Plant and Transmission Line Siting Committee ("Committee") for the Coolidge Expansion Project ("Expansion" or "Project").

Given the significant current economic development activity in Arizona and in the SRP service territory, leading to soaring growth in customer load, there is a critical need for additional generation resources to be available in the summer of 2024 to reliably meet that growth. No party in the proceeding disputes the need for more generation resources. The elected SRP Board of Directors determined that the Expansion was the best option to meet this significant need, as the Expansion provides more than 400 MW of firm and flexible generation that will be available in 2024 and additional 400 available in 2025, at the lowest cost for SRP's customers and support SRP's carbon reduction goals.

Concurrently with this extraordinary load growth, the electric industry is undergoing transformational change, as it rapidly increases the use of variable renewable resources such as solar and wind and, as they become reliable and economical, batteries. As the evidentiary record demonstrates, while SRP has made significant investments and

1 commitment to solar, wind and batteries, those commitments alone will not be able to
2 reliably meet the unprecedented demand over the next few years. The Expansion provides
3 the urgently needed firm, flexible resources to maintain the reliability of the power system
4 and facilitate the integration of more renewable resources onto SRP's system. The
5 Expansion uniquely addresses both immediate resource needs and the transition to, and
6 integration of, additional renewable resources.

7 Ultimately, after an eight-day evidentiary hearing with 23 witnesses, the Committee
8 agreed the Expansion is needed. The Committee found:

9 1. The Project aids the state and the southwest region of the United States in meeting
10 the need for an adequate, economical, and reliable supply of electric power.

11 2. The Project aids the state, preserving a safe and reliable electrical power system.

12 CEC Findings of Fact and Conclusions of Law 1 and 2.

13 With respect to the environmental compatibility of the Expansion, the Committee
14 determined, after evaluating all the factors set forth in A.R.S. § 40-360.06, and "balancing
15 the need for the Project with its impact on the environment and ecology of the state," that
16 the Expansion is environmentally compatible. This Expansion will be located on SRP-
17 owned land, directly adjacent to the existing, Commission-approved (Decision No. 70636)
18 Coolidge Generating Station built more than ten years ago, without objection, by the
19 Coolidge Power Corporation. The Expansion will therefore allow SRP to use existing
20 electrical, natural gas, and physical infrastructure, thereby minimizing the effects of the
21 Expansion on the environment and ecology of the state.

22 With regard to the claims of the Randolph Intervenors and Sierra Club in their
23 Requests for Review, the Committee appropriately complied with its statutory obligations
24 and fully and fairly evaluated the effects of the Expansion on the surrounding area,
25 including Randolph. Based on the record, the Committee determined that the Expansion
26 was appropriately sited and environmentally compatible. That said, there is no dispute that,
27 historically, Randolph and its residents have in many instances not been treated well or
28 fairly and have not prospered like other areas in Arizona. While the Expansion is neither a

1 cause nor contributor to that past mistreatment and the Committee correctly found that
2 environmental effects of the Expansion will be minimal, SRP is committed to assisting
3 Randolph and supporting improvements in the community of Randolph that are based on
4 the community's input, consistent with SRP's long history of community support. To that
5 end, the conditions adopted in the CEC will give the Randolph community a meaningful
6 voice, a platform, and resources for the community to make improvements and engage in
7 the decision-making regarding its future so that it can thrive and build the future it desires.
8 Those conditions include conditions SRP voluntarily proposed, such as vegetative
9 screening to reduce visual and noise impacts, paving to reduce air emissions from dust, job
10 training, scholarship opportunities, and a community working group to address longer term
11 community needs, as well as additional conditions SRP and the Randolph Intervenors
12 negotiated during the hearing.

13 For these reasons and many more, based on its full consideration of the evidence as
14 required by A.R.S. § 40-360.06 and with full understanding of the legal requirements of
15 A.R.S. §§ 40-360 through 40-360.13, the Committee determined:

- 16 4. The Project and the conditions placed on the Project in this Certificate
17 effectively minimize the impact of the Project on the environment and ecology
18 of the state
- 19 5. The conditions placed on the Project in this Certificate resolve matters
20 concerning balancing the need for the Project with its impact on the environment
21 and ecology of the state arising during the course of the proceedings, and, as
22 such, serve as findings and conclusions on such matters.
- 23 6. The Project is in the public interest because the Project's contribution to meeting
24 the need for an adequate, economical and reliable supply of electric power
25 outweighs the minimized impact of the Project on the environment and ecology
26 of the state.

27 CEC Findings of Fact and Conclusions of Law 4, 5, and 6.

28 SRP respectfully requests that the Commission affirm the Committee's thoughtful
and comprehensive consideration and confirm the Committee's CEC, Findings of Fact and
Conclusions of Law.

Discussion

I. The Expansion is urgently needed for SRP to reliably meet rapid load growth.

Maricopa County is the fastest growing county in the United States, with extraordinary growth in residential, commercial, and industrial sectors, including high-energy uses such as semiconductor manufacturing, data centers, and other high-tech industries. These customers – residential, commercial, and industrial – require and depend on reliable (firm and uninterrupted) electric service at all times. As a result of this rapid and unprecedented growth that was unforeseeable at the beginning of the pandemic in 2020, SRP forecasts a critical need for significant additional generation resources now.

Coupled with the rapid growth, “transformational change is occurring across the utility industry as it seeks to lower carbon emissions and reduce impacts from climate change.” Hr. Tr. 57:8-10, Vol I. While this transformation provides exciting opportunities as new technologies develop and carbon emissions drop, the transformation also creates new challenges. As John Coggins, SRP’s Associate General Manager and Chief Power System Executive, testified, the most significant challenge is maintaining reliability:

And the [challenge] that really sticks out in my mind more than others is reliability. And the challenge there is how do we maintain industry-leading reliability for our customers while also [meeting] the load growth that we've described, lowering carbon emissions, and managing costs going forward.

Hr. Tr. 59:4-9, Vol. I.

Reliability has three components: 1) meeting peak customer demand even as that demand is rapidly growing; 2) firming up and balancing variable intermittent renewable resources; and 3) preparing for unplanned outages and longer duration reliability events. Hr. Tr. 59:16-22, Vol. I. The importance of reliability cannot be overstated. “Even short-term power outages over a wide portion of SRP's service territory could impact public safety and security, financial returns for large and small businesses, economic development in the region, and the integrity of the Western U.S. grid.” Hr. Tr. 59:25, 60:1-4, Vol. I. For these reasons, SRP works diligently to maintain industry-leading reliability for its customers. Hr. Tr. 59:6-7, Vol. I.

1 To reliably meet this growing demand, SRP has undertaken a comprehensive and
2 diversified “AND” strategy by pursuing an array of resource types while reducing its
3 carbon footprint. SRP-2, Slide 51, attached. By way of example, the SRP Board has
4 approved adding: 2,025 MW of solar by 2025; an additional 450 MW of batteries by 2023;
5 additional output from the Palo Verde Nuclear Generating Station; additional demand
6 response programs; increased natural gas capacity and upgrades to existing plants; and an
7 additional 161 MW of wind by 2024. Hr. Tr. 272:18-25, 273:1-23, Vol II. Yet, even with
8 all those SRP Board-approved resource additions, due to the unprecedented demand since
9 the onset of the pandemic, SRP will need over 700 MW of additional power generation
10 capacity in 2024 and an additional 300 MW for a total of 1,000 MW by 2025. SRP-2, Slide
11 53, attached. The Expansion is a critical part of SRP’s “AND” strategy to meet that
12 additional generating capacity need required to meet the unprecedented near-term growth
13 and maintain the reliability of the power system.¹

14 As a not-for-profit, community-based institution, SRP has provided reliable and
15 affordable power to its customers for more than 100 years. SRP has met the challenges in
16 the past when there was rapid growth and with the confirmation of the CEC for the
17 Expansion, SRP will meet the unprecedented load growth and transition to renewables
18 reliably, sustainably, and economically on behalf of its customers.

19 **II. The Expansion is needed to help SRP reliably integrate more renewable**
20 **resources.**

21 No party to the proceeding challenged SRP’s testimony that additional resources are
22 needed for SRP to reliably serve its customers. However, some opponents claim that the
23 Expansion is inconsistent with a renewable energy future. But they are wrong. Renewable
24

25 ¹ Sierra Club raised arguments concerning the reliability of natural gas supplies, but SRP witness Bobby
26 Olsen explained the many measures SRP employs to ensure reliable gas supplies. These measures include:
27 acquiring supplies from multiple natural gas basins and diversifying gas transportation options by using
28 two separate pipelines systems. Hr. Tr. 1258:3 to 1259:3, Vol. VII. Access to a gas storage facility in
California also substantially reduces the risks of regional gas supply interruptions Hr. Tr. 1259:18 to
1260:17. As Mr. Olsen testified, WECC conducted an independent analysis and concluded that with the
gas storage field in operation, the otherwise already de minimis risk of loss of load due to gas event in the
Desert Southwest was completely mitigated. *Id.*

1 energy resources such as solar and wind are intermittent resources and thus cannot be relied
2 upon as firm generation to meet demand. These resources, which SRP supports, still need
3 to be paired with firm, flexible resources to make sure customers' lights stay on when the
4 sun is not shining or the wind is not blowing.

5 The Expansion will provide the firm, flexible capacity needed to facilitate the
6 reliable integration of the thousands of megawatts of renewable generation that will be
7 added into SRP's system. Hr. Tr. 1267:10-12, Vol VII. SRP's Board, with input from
8 management and a large stakeholder group that included intervenors Sierra Club and WRA,
9 established a 65% carbon reduction goal by 2035 (on an intensity-basis) that will require
10 significant renewable resources to meet that goal. Based on current load forecasts, SRP
11 projects that it will meet this goal and, in addition, will be able to reduce carbon emissions
12 by approximately 65% on a mass basis from 2005 baseline levels by 2035. Hr. Tr. 342:7-
13 13, Vol. II and 1265:24-24, 1268:1, 1287:3-5, 1298:23-25, Vol. VII. This means that, even
14 as SRP's system loads and resources increase at unprecedented levels, total SRP system
15 carbon emissions will still drop by approximately 65% by 2035 with the Expansion. The
16 Expansion serves a critical reliability need while also supporting SRP's ability to
17 significantly reduce carbon emissions. The Expansion is not a case of renewables versus
18 fossil fuels. It is instead a critical piece of SRP's "AND" strategy to provide sustainable,
19 affordable, and reliable power.

20 For Intervenor Sierra Club, with the stated goal to eliminate all fossil fuels, this 65%
21 reduction is not enough. Instead, during the hearing, Sierra Club suggested that batteries
22 were sufficient to do everything the Expansion can do. This is simply incorrect. To support
23 its claim, Sierra Club misrepresented the record to assert that 731 MW of batteries can
24 replace the benefits of the Expansion. Hr. Tr. 1121:1-3, Vol. VII. Instead, the analysis
25 prepared by E3 showed comparable benefits for renewable integration with this amount of
26 batteries *in only one single year, 2026*. Hr. Tr. 418:9-14, Vol. II and Hr. Tr. 1121:1-3, Vol.
27 VII. However, SRP will continue adding variable zero-carbon resources at a rapid pace
28 well beyond 2026 and, as a responsible utility, cannot plan for new resource additions by

1 looking at a single year, ignoring customer and reliability needs in subsequent years. Sierra
2 Club's argument must be rejected.

3 Prudent utility planning must evaluate how resources perform and fit into a utility's
4 resource portfolio over a long-term (30 year) planning horizon. SRP performed this
5 analysis and worked with E3 to obtain a third-party independent perspective. Both SRP
6 and E3 found that as more renewables are added, more and more batteries will be needed
7 to achieve comparable reliability benefits to the Expansion. Hr. Tr. 331:6-8, Vol. II and
8 Hr. Tr. 1155:22-25, Vol. VII. By 2035, over 2,300 MW of batteries *and over 500 MW of*
9 *renewable-fueled combustion turbine technology* – technology that is not currently
10 available – would be needed simply to replace the reliability benefits of the Expansion. *See*
11 *SRP-2, Slide 98, attached. Batteries alone cannot replace the Expansion. Additionally, that*
12 *replacement comes at a cost to SRP customers – an additional \$637 million on a net present*
13 *value basis. Hr. Tr. 1267:20-23, Vol. VII. And for what benefit? Both the Expansion and*
14 *alternative portfolio as modeled by SRP and E3 included 9,000 MW of renewable energy*
15 *by 2035. Hr. Tr. 1267:10-11, Vol. II. And, because the Expansion will be used as a*
16 *balancing resource, expected output, and thus emissions, from the Expansion will be*
17 *minimized. Hr. Tr. 342:24-25, 343:1-2 Vol. II. Accordingly, the alternative portfolio,*
18 *which relies exclusively on nascent battery technology, only provides a negligible amount*
19 *of additional carbon emission reductions. Hr. Tr 1305:3-9 Vol. VII and SRP-2, Slide 110,*
20 *attached.*

21 Moreover, as Mr. Coggins testified, given the critical importance of reliability, SRP
22 must make sure it gets the renewable transition done the right way so it can continue to
23 provide reliable electric service to its customers. Hr. Tr. 70:4-10, Vol. I. As WRA's witness
24 testified, battery technology is still in its infancy. Hr. Tr. 975:17-18, Vol. V. SRP witnesses
25 agreed, noting that as of 2021, battery installations represent less than ½ percent of capacity
26 installed nationally and the electric industry is still learning how best to use them reliably
27
28

1 and safely.² Hr. Tr. 316:6-11, Vol II and SRP-2, Slide 80. Yet, SRP is not choosing the
2 Expansion *instead* of developing batteries. Even with the Expansion, SRP is adding 450
3 MW of batteries over the next two years and will have 500 MW of batteries online by
4 summer 2023. This is an ambitious commitment given that currently there are 95 MW in
5 Arizona and 3,200 MW nationwide. Hr. Tr. 1269:1-3, Vol. VII. In addition, SRP is working
6 on several initiatives with many partners such as the Electric Power Research Institute,
7 Arizona State University, the University of Arizona, Northern Arizona University, and
8 others to further develop and evaluate battery technology, identify ways to improve battery
9 reliability and safety in the Arizona heat,³ and to prepare to operate a power system with
10 much more battery storage and renewable resources. Hr. Tr. 356:6-25, 357:1-13, Vol. II.

11 SRP must provide reliable power when customers need it. We all want the lights to
12 come on when we flip the switch and we all need the air conditioning to run in the heat of
13 an Arizona summer. To meet that obligation to serve its customers, SRP relies on a
14 comprehensive and diversified “AND” strategy when evaluating future resource
15 investments. Investments in batteries should be made prudently and in a measured fashion,
16 as the industry gains more experience, battery technology becomes more reliable, and costs
17 go down. Spending an additional \$637 million dollars of customer money on an emerging
18 technology for a 1% decrease in carbon emissions is not a smart investment. Hr. Tr. 337:6-
19 8, Vol. II and SRP-2, Slide 100. There are many cost-effective ways to reduce carbon
20 emissions, and SRP is pursuing them all as part of the “AND” strategy. The Expansion is
21 a critical piece of that smart sustainability strategy.

22 **III. SRP has made significant commitments to improve the quality of life for**
23 **Randolph residents and further minimize the effects of the Project.**

24 As the record demonstrates and the Committee found, the needed Expansion is
25 environmentally compatible, with minimal effects on the environment and ecology of the

26 ² The two largest battery installations in the country are 400 MW. One of those, Moss Landing, had been
27 operating at ¼ capacity since September 2021 due to a fire at that facility. The remaining 100 MW went
28 offline due to a fire in February 2022. Hr. Tr. 1269:14-1270:5, Vol. VII.

³ This is not an insignificant issue. Ambient temperatures above 100 degrees F can have a significant effect
on battery performance and life.

1 state. Nonetheless, SRP acknowledges that the unincorporated community of Randolph
2 and its residents have historically been underserved. While the existing Coolidge
3 Generating Station did not cause and that the Expansion will not contribute to the
4 challenges faced by the Randolph community, SRP is committed to doing its part to assist
5 the Randolph community to choose and build its future. Towards that end, SRP has
6 committed to a number of supplemental, Randolph-specific conditions – consistent with
7 SRP’s long-standing commitments to other communities in which it operates – that will
8 improve the quality of life for Residents in a myriad of ways.

9 These conditions include but are not limited to: vegetative screening for the
10 Randolph community to further reduce visual effects and noise (CEC Condition 8); paving
11 within the Randolph community and roads surrounding the Expansion that will reduce area
12 PM10 emissions (CEC Condition 9); a scholarship program and job training to benefit
13 Randolph residents (CEC Conditions 8 and 10); and support for Randolph Intervenors’
14 desire to establish historic designations for the community (CEC Condition 11). Finally,
15 SRP also committed to establish a community working group with representatives from
16 the Randolph community, Pinal County and the City of Coolidge to provide Randolph with
17 a platform to work with the local jurisdictions regarding meaningful infrastructure to
18 improve the quality of life for Randolph residents (CEC Conditions 8 and 12).

19 In addition, SRP and Randolph Intervenors negotiated and agreed to several other
20 conditions in the CEC that are modeled on conditions included in Decision No. 63611, the
21 Commission-approved CEC for the Santan Generation Station expansion in Gilbert. These
22 conditions include SRP’s commitments to limit nighttime construction noise (CEC
23 Condition 13) and provide public access to emergency and safety plans and emission
24 monitoring data (CEC Conditions 16 and 17). SRP and Randolph Intervenors also agreed
25 to memorialize SRP’s prior commitment to discontinue groundwater use for the existing
26 Coolidge Generating Station and not use groundwater for the Expansion (CEC Condition
27 14).
28

1 SRP will work with the Randolph community to help it create its future. As SRP
2 witness Anne Rickard testified: "SRP has a legacy over 100 years of supporting
3 communities where we are in the service territory and areas of impact. Randolph is exactly
4 what we're talking about here. Our commitment is real. We've outlined and identified
5 several conditions we'd be ready to start today." Hr. Tr. 591:10-16, Vol. I. SRP has a proven
6 history of implementing community working groups and other commitments to improve
7 the quality of life for its neighbors. Hr. Tr. 592:1-5, Vol. I. SRP will do the same for the
8 Randolph community.

9 **IV. The Project is Environmentally Compatible with the Surrounding Area,**
10 **including the Randolph Community.**

11 The Siting Committee's charge is to evaluate whether a proposed project is
12 environmentally compatible based on the factors set forth in A.R.S. § 40-360.06. In this
13 matter, the Siting Committee evaluated *all* the factors enumerated under A.R.S. § 40-
14 360.06 and correctly determined that the Project is environmentally compatible based on
15 the robust record developed during the evidentiary hearing. *See, e.g.,* Finding of Fact #4:
16 "The Project and the conditions placed on the Project in this Certificate effectively
17 minimize the impact of the Project on the environment and ecology of the state."

18 **A. Expansion of the existing generating station minimizes the effects of the**
19 **Project on the environment and ecology of the state.**

20 SRP carefully considers how to minimize "the effects [of a Project] on the
21 environment and ecology of this state." For generation facilities, one of the best ways to
22 do so is to expand an existing generation site rather than build new generation at new
23 locations. Hr. Tr. 64:15-21 Vol. I. Expanding an existing plant minimizes impacts by
24 relying on existing physical, electrical, and natural gas infrastructure and often by avoiding
25 or reducing the need for new long-distance transmission lines. That is the case here, as the
26 Expansion requires no new long-distance transmission facilities, no new natural gas
27 pipelines, and will leverage the existing plant infrastructure. Hr. Tr. 363:3-25, Vol. II.
28

1 SRP's decision here is consistent with the last two generation resources for which
2 SRP sought and received Commission approval: the Kyrene Generating Station located in
3 Tempe (Decision No. 62989; Docket L-00000B-00-0104-00000) and the Santan
4 Generating Station located in Gilbert (Decision No. 63611; Docket L-00000B-00-0105).
5 Hr. Tr. 64:22-25, Vol. I.

6 The Expansion will have even less impact than the two prior Commission-approved
7 expansions in Tempe and Gilbert. First, both of those authorized construction of combined
8 cycle units that operate more frequently than the flexible, fast-ramping combustion turbine
9 units proposed for the Expansion. Second, there are significantly fewer residents near the
10 Expansion than either the Kyrene or Santan expansions. For the Santan expansion CEC
11 application, 16,300 property owners were notified in the 2.5-mile study area. Santan
12 Application, Exhibit J, available at:
13 <https://docket.images.azcc.gov/0000089533.pdf?i=1647266638859>. For Kyrene, 37,500
14 property owners were notified in the 2.5-mile study area. Kyrene Application, Exhibit J,
15 available at: <https://docket.images.azcc.gov/0000000845.pdf?i=1647027774423>. In
16 contrast, there are fewer than 450 homes within the two-mile study area for the Expansion.
17 Hr. Tr. 506:11-13, 538:25, 539:1-6 Vol. III and SRP-1, Exhibit A, A-9.

18 There is also a significant difference in the proximity of residences to the Expansion
19 than they are to Kyrene in Tempe and Santan in Gilbert. For the Santan and Kyrene
20 expansions, the nearest residences were 500 feet and 600 feet, respectively. Hr. Tr. 256:19-
21 25, 257:1-5, Vol II and Kyrene Hr. Tr. 109:18-25. The nearest residence to the Expansion
22 is 1,000 feet, and that residence is not within the Randolph community. Randolph
23 residences are located significantly farther away than that – the closest residents are
24 approximately 2,800 feet away. Hr. Tr. 473:22-25, 474:1-2, 475:8-24, Vol. III.

25 In both of SRP's prior plant expansions, nearby homeowners raised many of the
26 same concerns raised by the Randolph Intervenors here. Despite those concerns, the
27 Committee and Commission found both expansions were environmentally compatible and
28 approved the projects. The Committee and Commission have long understood that nearby

1 residents often oppose electrical infrastructure and thus must focus on the “broad public
2 interest,” not just local opposition. Specifically, the Commission must “balance, in the
3 broad public interest, the need for an adequate, economical and reliable supply of electric
4 power with the desire to minimize the effect thereof on the environment and ecology of
5 this state.” A.R.S. § 40-360.07(B). With SRP’s prior plant expansions, the Commission
6 recognized its charge is to consider the environmental compatibility of the proposed project
7 based on the evidentiary record, not simply nearby landowners’ desires to not have electric
8 infrastructure nearby. The Commission understood that its role is to balance the need for
9 power with the desire to minimize effects on the environment and ecology of the state, not
10 just one community.

11 **B. SRP’s site-specific analyses demonstrate the Expansion will have**
12 **minimal environmental effects.**

13 SRP conducted comprehensive, Project-specific analyses that demonstrate the
14 environmental effects of the Expansion will be minimal on the surrounding area, including
15 the Randolph community. Devin Petry, Environmental Project Manager with SWCA
16 Environmental Consultants, presented the site-specific analyses and findings prepared in
17 support of the CEC application, which included land use, visual resources, noise, water,
18 and cultural resources, among others. *See, e.g.*, SRP-2, Slides 177-222, including visual
19 simulations from Randolph, slides 206 and 208, attached. Based on the comprehensive,
20 site-specific analyses SWCA conducted in support of the Application as required by R14-
21 3-219 and Exhibit A, Mr. Petry testified the expansion is environmentally compatible under
22 A.R.S. § 40-360.06. Hr. Tr. 579:23-25, 580:1-2, Vol. III.

23 The Expansion will use minimal amounts of water. The Expansion’s generation
24 method is simple cycle, which uses aeroderivative turbines similar to those used in the
25 aviation industry. It does not rely on steam to produce power, so it uses significantly less
26 water than other types of generation, such as a combined cycle natural gas power plant.
27 Once the Expansion is operational, total water usage at the Coolidge Generation Station is
28 not expected to exceed 450 acre-feet per year. Hr. Tr. 231:8-25, 232:1-10, Vol. III. and

1 SRP-2, Slide 30, attached. Moreover, SRP testified that after completion of the expansion,
2 SRP will discontinue the use of groundwater and will rely exclusively on stored Central
3 Arizona Project water to serve the Coolidge Generating Station.⁴ SRP has already
4 stored sufficient water in the area to support an expanded Coolidge Generating Station for
5 more than 60 years. Hr. Tr. 232:11-20 Vol. II.

6 SRP's Project-specific analyses did not stop at the regulatory requirements set forth
7 in R14-3-219 and Exhibit A thereto, however. The evidentiary record includes further site-
8 specific analyses of air quality emissions, historical considerations, and the unique
9 characteristics of the Randolph community. SRP witness Kristin Watt, Manager Air
10 Quality, presented testimony regarding the sophisticated air quality modeling conducted in
11 support of the air quality permitting process. This analysis demonstrates that emissions
12 from the Expansion will not cause or contribute to an exceedance of the National Ambient
13 Air Quality Standards (NAAQS) established by the U.S. Environmental Protection Agency
14 to be protective of human health and the environment. Hr. Tr. 574:7-12, Vol. III. Mr. Petry
15 and Kenda Pollio, Principal and CEO of kp environmental, testified that Randolph's history
16 was carefully considered. The expansion of the Project on SRP's own land does not
17 diminish Randolph's history and will not affect whether the community receives historical
18 designation as desired by some Randolph residents. Hr. Tr. 554:2-6, 557:2-16, Vol. III.

19 Ms. Pollio also provided testimony regarding her evaluation of the history of the
20 Randolph area, her prior analysis in support of the CEC for the existing Coolidge
21 Generating Station, and her evaluation of the expansion using: EPA's EJSCREEN, an
22 Environmental Justice (EJ) screening and mapping tool; EPA's Mapping Power Plants and
23 Neighboring Communities tool; and EPA's Environmental Toolkit for Assessing Potential
24 Allegations of Environmental Justice. Hr. Tr. 581:17-25, 582:1-20, 585:13-15, Vol. III.
25 The results of those site-specific analyses demonstrated that the effects of the Expansion
26

27 ⁴ Intervenor Sierra Club has misled the public to make comments asserting that the Expansion will use
28 groundwater, even though the evidentiary record makes clear that the Expansion will not. See
https://www.sierraclub.org/sites/www.sierraclub.org/files/scc/grand-canyon-chapter/energy/20220301_SRP_Coolidge_Expansion_Tool_Kit_CEC_6.pdf, last visited March 8, 2022.

1 do not rise to a level considered significant for environmental justice considerations. Hr.
2 Tr. 587:18-20, Vol. III. As the record shows, the Expansion will have minimal
3 environmental effects.

4 In contrast, the Randolph Intervenors' witnesses did not demonstrate any significant
5 environmental justice concern that was due to the Expansion. The Randolph Intervenor
6 witnesses spoke in generalities, and not one evaluated the effects of *this* proposed
7 expansion. Other than the Randolph residents, few, if any, of the Randolph Intervenors'
8 witnesses had even seen Randolph or the existing generating facility. Their expert
9 witnesses spoke in general terms regarding historic bias against African American
10 communities, but none presented evidence relevant to the Project at hand. For example,
11 Randolph's witness regarding property valuations acknowledged that he had conducted no
12 analysis regarding claimed effects of the Expansion on property values. Hr. Tr. 1071:24-
13 25, 1072:1-5, Vol. VI. Instead, he sponsored a study regarding "toxic plants" without
14 understanding that the Expansion is not a "toxic plant" under EPA's definition used in that
15 study. Hr. Tr. 1076:6-17, Vol. III. Randolph Intervenors' self-proclaimed air quality expert
16 was unfamiliar with existing federal air quality standards and did not understand the
17 distinction between criteria and hazardous air pollutants. Hr. Tr. 1014:24-25, 1015:1-6,
18 1021:14-18, Vol. VI and Hr. Tr. 1220:2-14, Vol. VII. In contrast, the site-specific analyses
19 in the record provided by SRP witnesses make clear that the Expansion will have minimal
20 effects on the environment of the area and the state.

21 **C. The Coolidge Expansion Project will not negatively affect human health**
22 **or the environment.**

23 Though the Project will have minimal environmental effects, intervenors made
24 unfounded allegations regarding health impacts.⁵ However, as discussed in the preceding
25 section, the existing Coolidge Generating Station and the expansion are not "toxic" plants

26 ⁵ As just one example, Sierra Club presented testimony that relied on a preliminary screening tool
27 (COBRA), and tried to pass it off as detailed health impact assessment, even though Sierra Club's
28 witness acknowledged it is a "simplified model" and EPA says this model provides "crude
estimates" and the more site-specific dispersion modeling that SRP conducted here is more
sophisticated. Hr. Tr. 1225:10-17, 1226:12-18, 1227:11-17, 1230:22-25, Vol. VII.

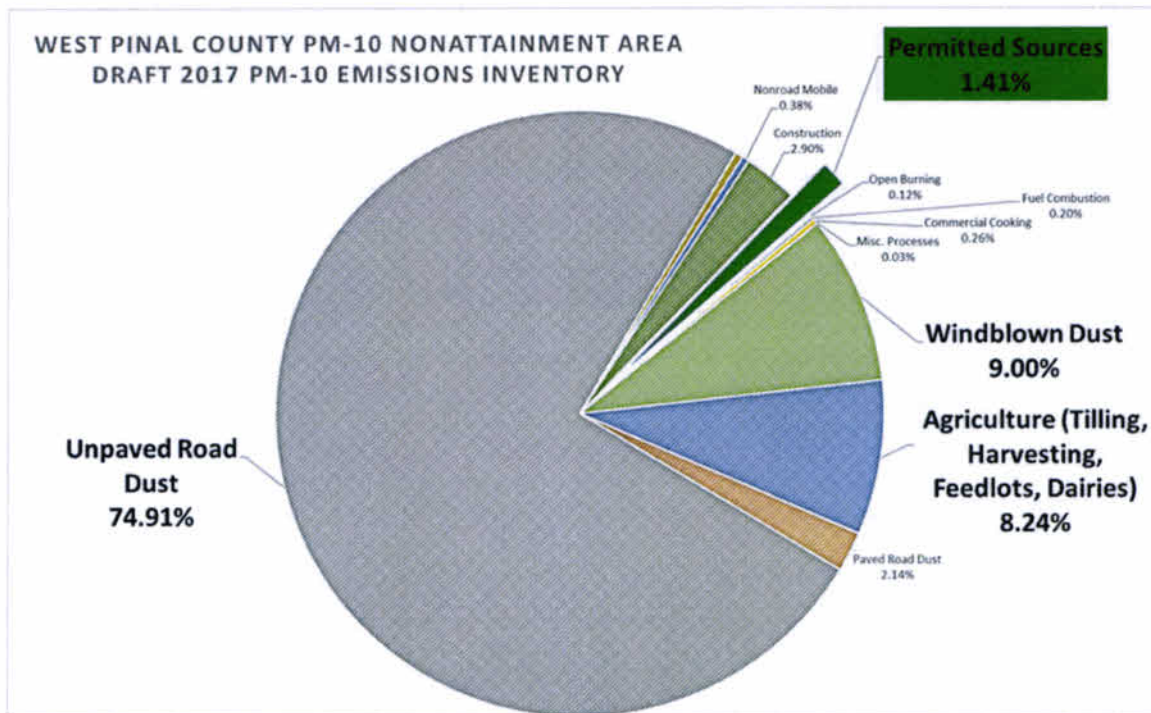
and the Expansion is not a major source of hazardous air pollutants. SRP-1, Exhibit B-1: 5-11.

Project opponents will incorrectly assert that the Expansion exacerbates ambient air quality that is already unhealthy because the area is included in the regional West Pinal 10 nonattainment area. In so doing, these opponents ignore the site-specific modeling analysis that SRP conducted in support of the air quality permit revision application. Here is what the modeling shows:

Existing 24-hour PM10 concentration as monitored by nearest and most-representative monitor	Total modeled 24-hour PM10 concentration due to Stinger Bridge and Iron, existing Coolidge Generating Station, and the Expansion	National Ambient Air Quality 24-Hour PM10 Standard
96 ug/m3	41 ug/m3	150 ug/m3

Hr. Tr. 573:18-25, 574:1-4, 574:7-12, Vol. III and SRP-2: Slide 230. The overall result of the modeling, which includes background as well as contributions from surrounding sources, is 137 ug/m3. This is less than the 24-hour PM-10 NAAQS of 150 ug/m3, which EPA has established as the NAAQS to be protective of human health and the environment based on recommendations from EPA's Clean Air Scientific Advisory Committee, a national committee of health experts. Hr. Tr. 561:17-25, 562:1-18 Vol. III.

The primary driver for the regional nonattainment area designation is unpaved roads, not emissions from stationary sources. See SRP-2, Slide 230, below and attached:



Unpaved roads account for approximately 75% of PM10 emissions in the nonattainment area. Windblown dust emissions are responsible for another 9%. In contrast, emissions from permitted sources are less than 1.5% of the total PM10 emissions in the nonattainment area and emissions from the Expansion are only a small portion of that small percentage, incredibly small in the regional context. SRP-2, Slide 230. SRP's site-specific air dispersion modeling, conducted in support of the air quality permitting process, demonstrates that emissions from the facility will not negatively affect human health or the environment. Hr. Tr. 574:7-12, Vol. III.

The record also demonstrates that the Expansion does not use or create significant amounts of chemicals or hazardous materials. For example, to treat water for use in operations, the Expansion, like the existing facility, will use a process similar to the household reverse osmosis systems in widespread use. Hr. Tr. 263:9-15, Vol. II and Hr. Tr. 463:9-17, Vol. III. The evaporation ponds collect wastewater from this process – wastewater that contains no additional chemicals, but rather the concentrated impurities (total dissolved solids) from the water's natural state.

1 The Expansion is safe and will not affect human health. It will have minimal
2 environmental effects and, as the Committee found, is environmentally compatible with
3 the surrounding area.

4 Conclusion

5 The location of the Expansion, adjacent to the existing Coolidge Generating Station,
6 minimizes effects on the environment and ecology of the state. The Committee thoroughly
7 evaluated the environmental effects of the Project and adopted thoughtful, comprehensive
8 conditions, including several negotiated by SRP and the Randolph Intervenors, to further
9 minimize environmental effects and improve the quality of life for neighboring residents.

10 Demand for electricity is growing at an extraordinary rate at the same time the
11 electric industry is undergoing a transformational change to decarbonize. SRP is committed
12 to meeting growing demand while reducing carbon emissions in a reliable and economic
13 manner:

14 SRP is committed to make this change for our customers and communities,
15 making sure that as we make the change, we get it right. We've examined all
16 the options, and in order to be able to meet the reliability needs as I've
17 described, the carbon goals, and maintain affordability, we've selected the
Coolidge Expansion Project.

18 John Coggins, Hr. Tr. 70:4-10, Vol. I.

19 The Expansion is required to meet demand and provide a firm resource to integrate
20 more renewable resources while maintaining the reliability of the power system. SRP
21 respectfully requests the Commission confirm the Committee-issued CEC for the
22 Expansion.

23 RESPECTFULLY submitted this 14th day of March, 2022.

24 JENNINGS STROUSS & SALMON, P.L.C

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Original + 13 copies filed on March 14, 2022, with:

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I hereby certify that I have this 14th day of March, 2022, served the foregoing document(s) on all parties of record in this proceeding, as listed below or on the attached service list consisting of 28 (#) pages, by email/mail.

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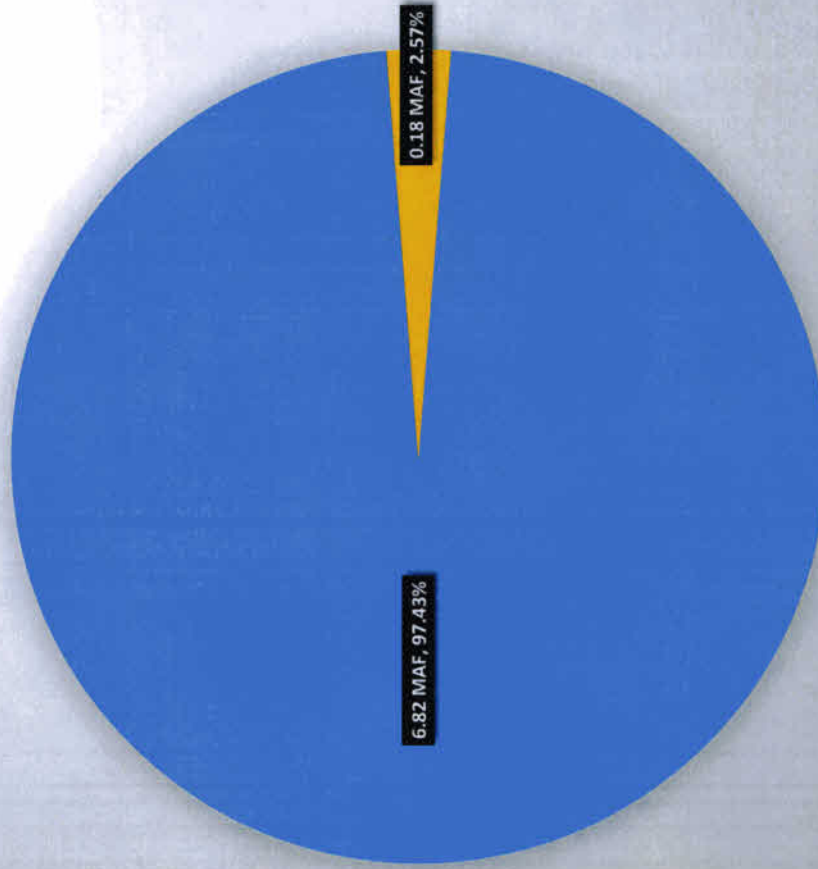
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Slides

2017 Arizona Statewide Water Use versus Utility Water Use



■ Arizona

■ SRP

■ Other Utilities

Meeting Near-Term Needs with “AND” Strategy *



Solar Additions
2025 MW by 2025



Battery Storage
+450 MW by 2023



Flexible Natural Gas
+198 MW by 2022



Palo Verde Nuclear
+114 MW by 2024



Demand Response
150 MW by 2022



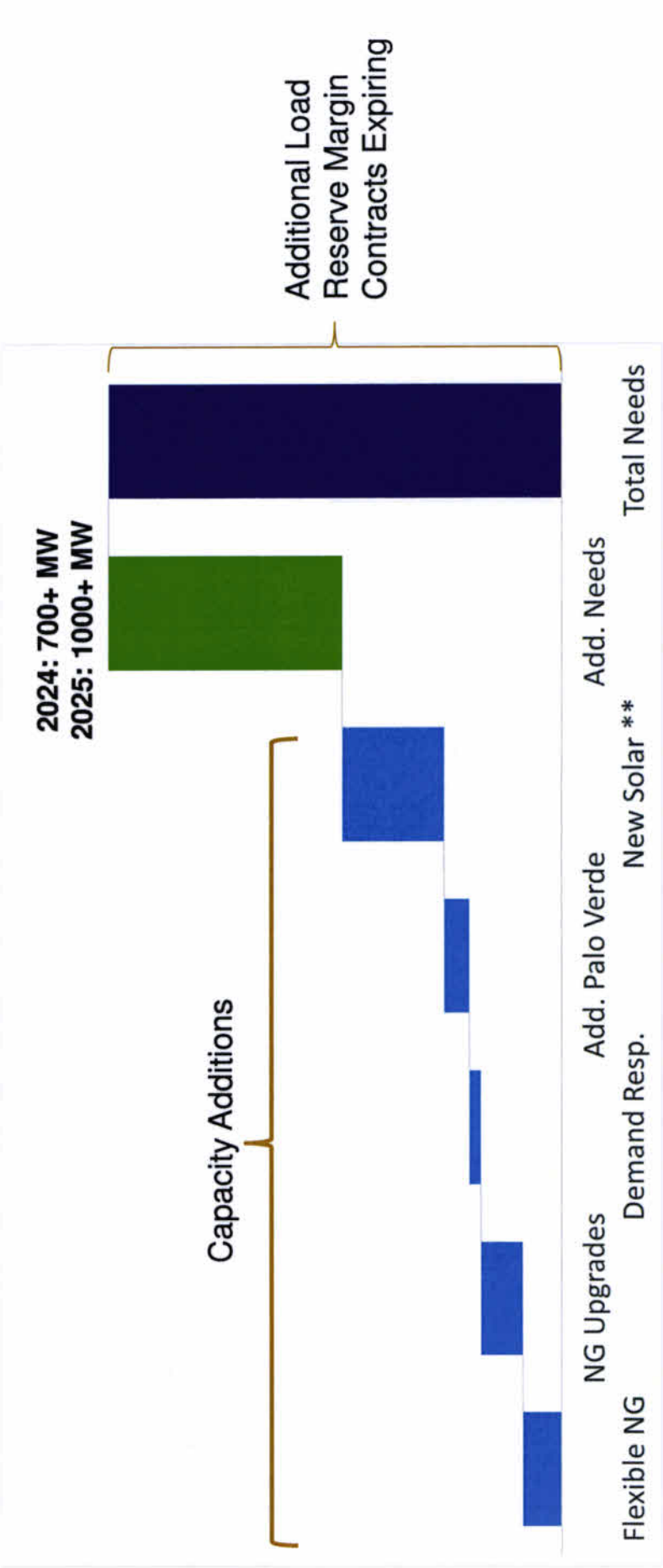
Wind
+161 MW by 2024



Natural Gas Upgrades
+190 MW (at peak) by 2025

* Does not include Coolidge Expansion Project

Remaining Resource Needs to Serve Peak Demand *

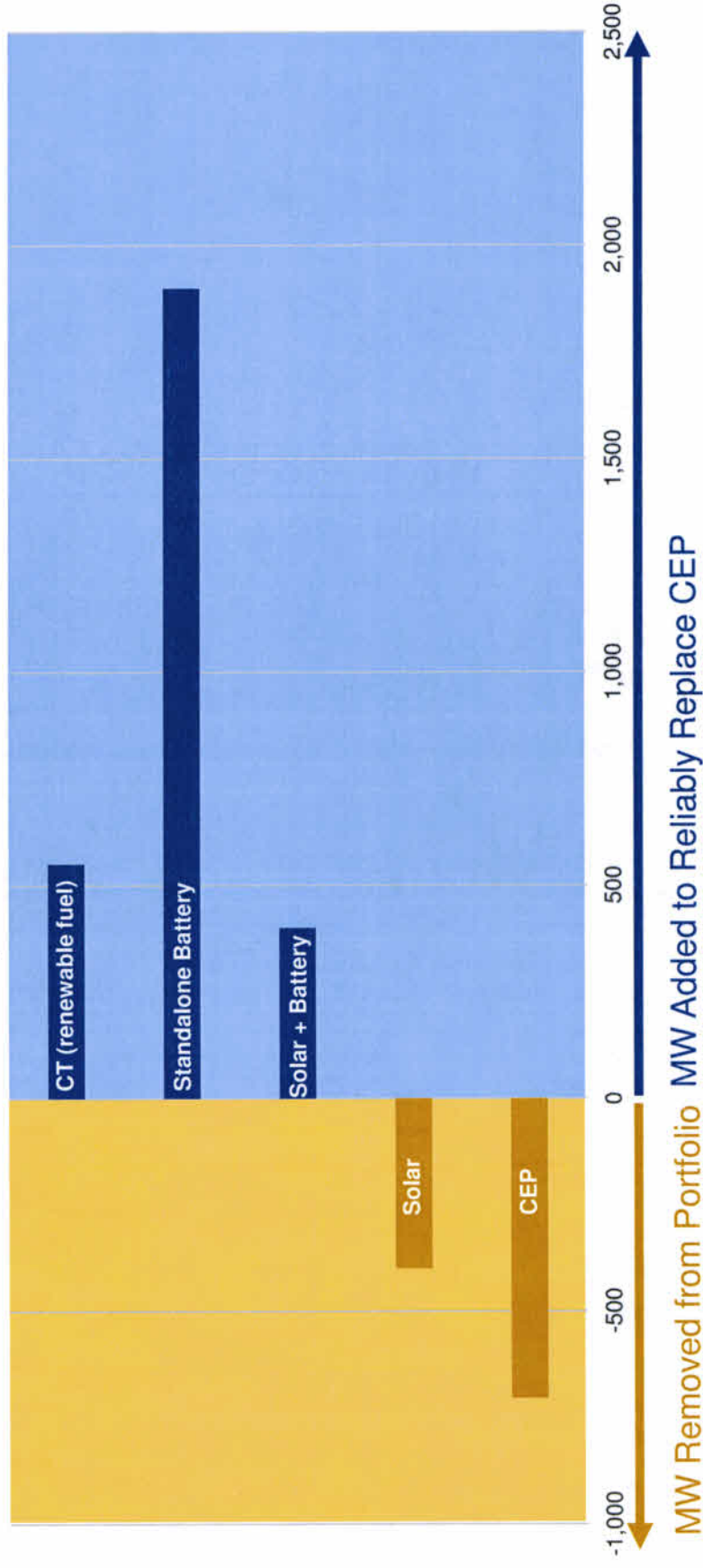


* As of August 2021 (prior to SRP Board approval of Coolidge Expansion Project)

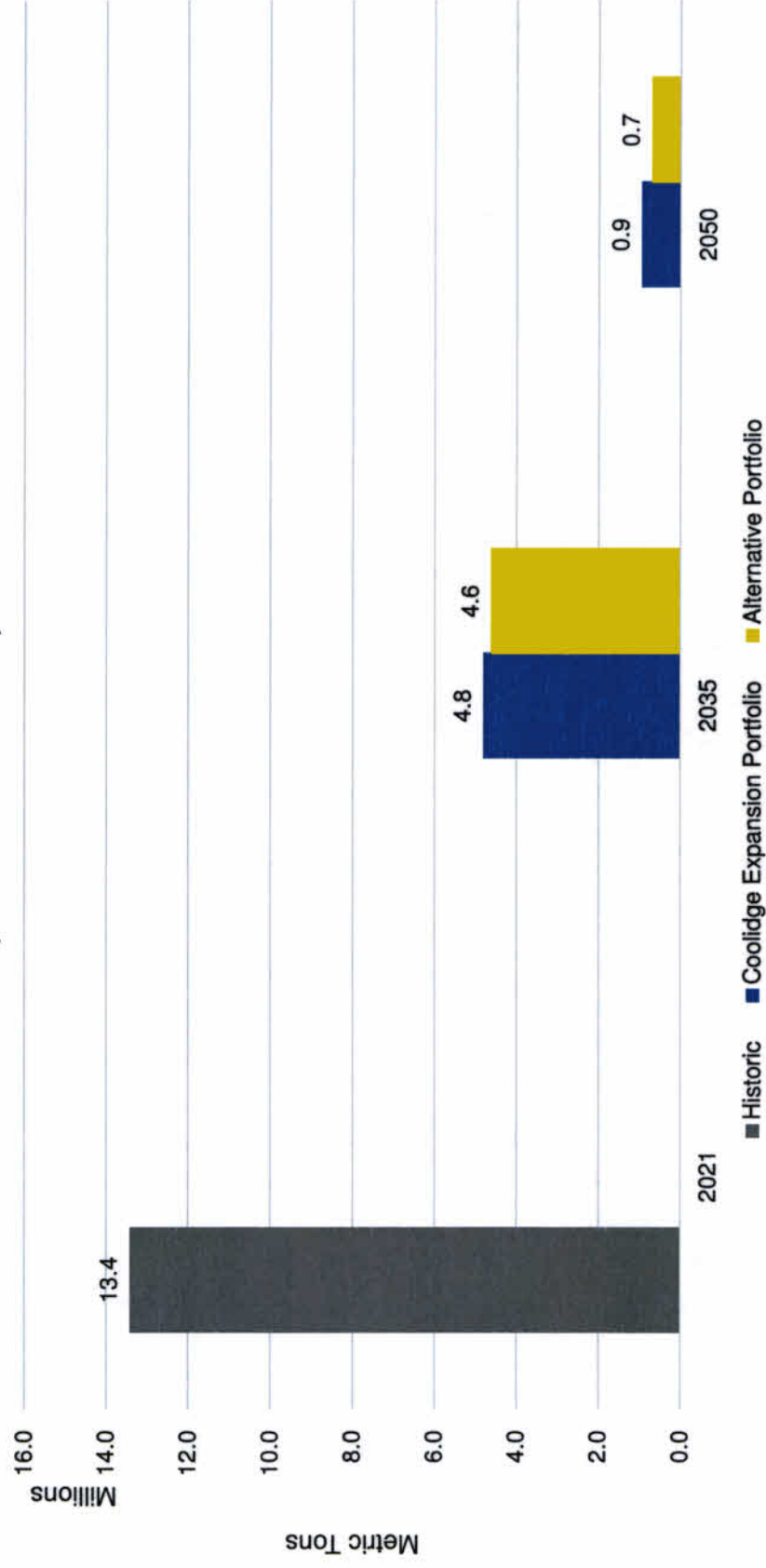
** Includes solar projects paired with battery storage

Alternative Portfolio to Maintain Reliability

Comparison to CEP Portfolio, 2035



Projected Annual Carbon Emissions (Resource Portfolio)





Existing Condition

KOP 5A: View from residence at East Malcom X Street and North Kennedy Street looking east

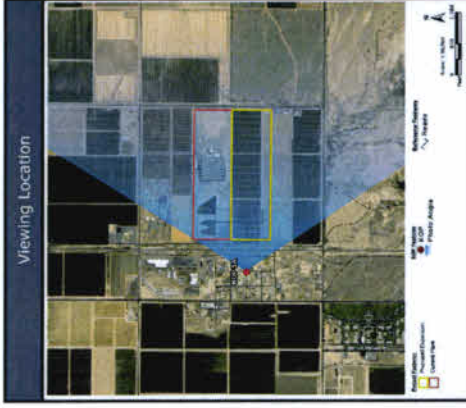


Simulated Condition

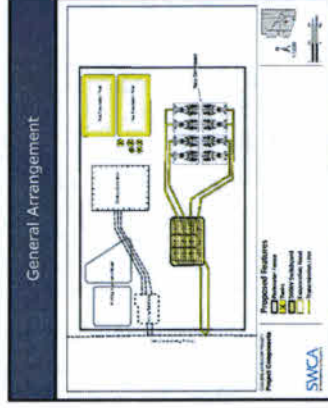
KOP 5A: View from residence at East Malcom X Street and North Kennedy Street looking east

Coolidge Expansion Project | October 2021

Simulation from KOP 5A: View from residence at East Malcom X Street and North Kennedy Street



Viewing Location



General Arrangement

Photo Date and Time: August 24, 2021, 10:00 am
View Location: Approximate distance to nearest new structure from photo location is 0.15 miles.
Simulations were prepared using information provided by SRP. Structure locations, colors, and heights may be different based on final engineering and design.





Coolidge Expansion Project | October 2021
Simulation from KOP 5C: View from residence at East Malcom X Street and North Hughes Street

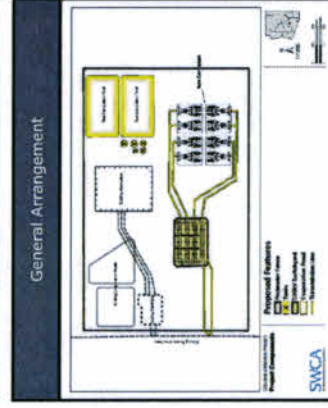
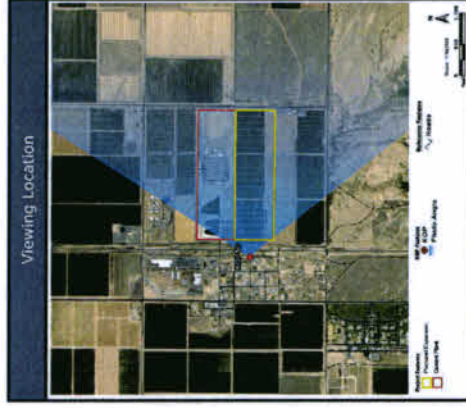
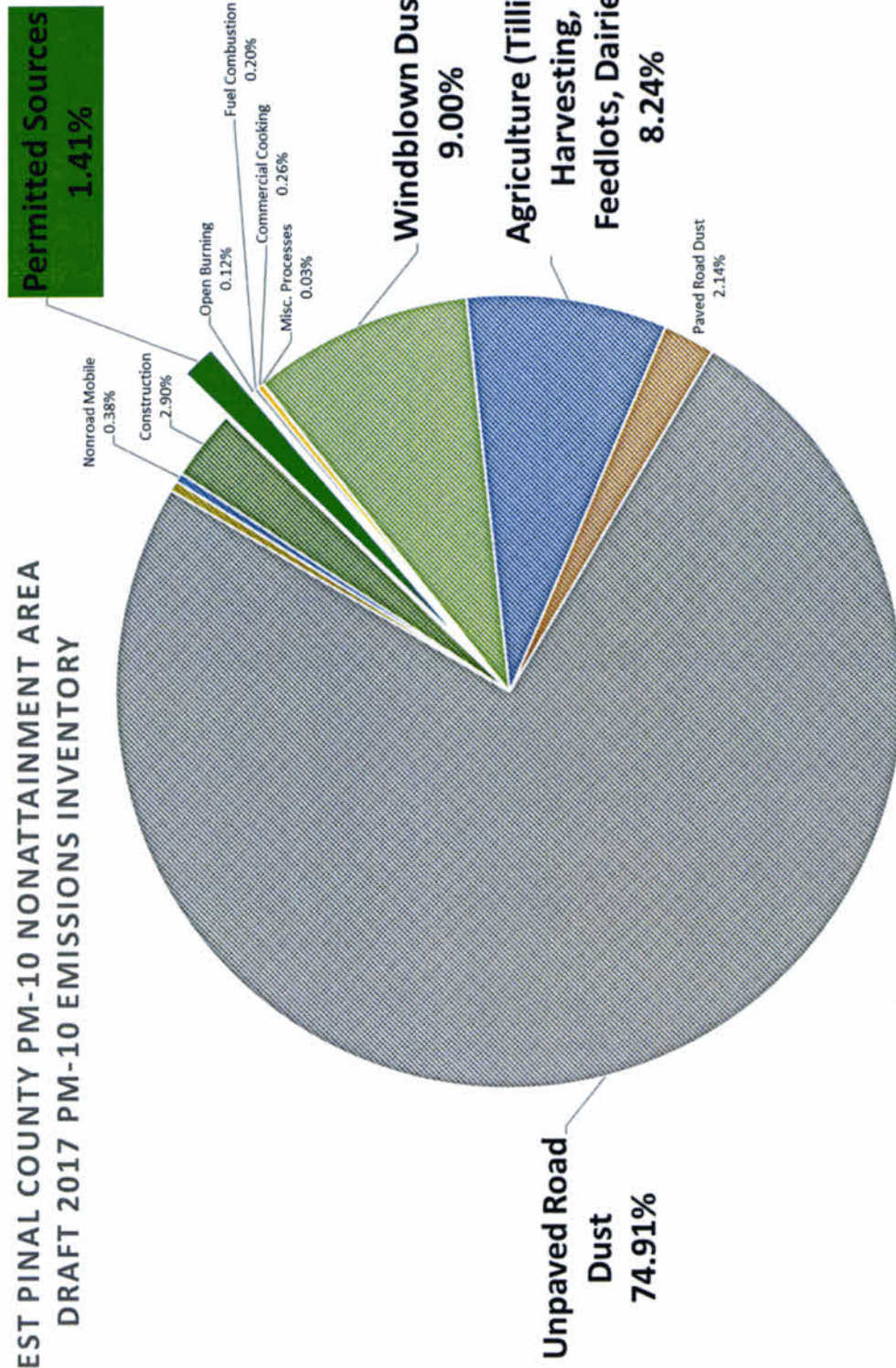


Photo Date and Time: August 24, 2021, 10:10 am
 View Location: Approximate distance to nearest new structure from photo location is 0.1 miles.
 Simulations were prepared using information provided by SRP. Structure locations, colors, and heights may be different based on final engineering and design.



WEST PINAL COUNTY PM-10 NONATTAINMENT AREA DRAFT 2017 PM-10 EMISSIONS INVENTORY



Source: Update on the 2022 Serious Area Particulate Plan for the West Pinal County Nonattainment Area Presentation by the MAG Air Quality Technical Advisory Committee. September 23, 2021 <http://www.azmad.gov/Events/27136>